

LUBRICANT COMPOSITIONS AND METHODS

ABSTRACT OF THE DISCLOSURE

A process is disclosed for manufacturing a lubricant composition comprising combining a superabsorbent polymer with a material for decreasing friction between moving surfaces. The superabsorbent polymer absorbs from about 25 to greater than 100 times its weight in water and may comprise a polymer of acrylic acid, an acrylic ester, acrylonitrile or acrylamide, including co-polymers thereof or starch graft co-polymers thereof or mixtures thereof. A product produced by the process includes the material for decreasing friction comprising a petroleum lubricant containing an additive, water containing an additive, synthetic lubricant, grease, solid lubricant or metal working lubricant, wherein the synthetic lubricant, grease, solid lubricant or metal working lubricant optionally contain an additive. A process comprising controlling the delivery of a lubricant to at least one of two moving surfaces in order to decrease friction between said moving surfaces, is also disclosed. This process includes applying the lubricant composition to at least one of the surfaces. The lubricant composition in this instance comprises a superabsorbent polymer combined with a material for decreasing friction between moving surfaces, wherein the material for decreasing friction comprises a petroleum lubricant, water, synthetic

lubricant, grease, solid lubricant or metal working
lubricant, and optionally an additive.